

**SECTION 01010: SUMMARY OF WORK**

**PART 1 – GENERAL**

**1.01 GENERAL DESCRIPTION OF SITE**

The Holly Street Landfill site is a 13-acre historic municipal solid waste landfill located in the City of Bellingham's Old Town district. The general location and layout of the site is shown on Sheet G-1 of the Plans. Municipal solid waste is located on both sides of Whatcom Creek, with the landfill divided into a northern unit and a southern unit. Both the northern landfill unit on the north bank, and the southern landfill unit encompassing Maritime Heritage Park and the south bank of Whatcom Creek, are listed and ranked by Ecology as contaminated sites subject to the investigation and cleanup requirements of the Washington State Model Toxics Control Act (MTCA). Since these sites are essentially one site bisected by Whatcom Creek, Ecology has combined the sites into one site known as the Holly Street Landfill.

**1.02 NATURE AND EXTENT OF SITE CONTAMINATION**

A Remedial Investigation/Feasibility Study (RI/FS) was prepared by Anchor and Aspect (2003) for this site, including collection of data needed to evaluate the nature and extent of contamination. Soil, sediment, surface water, and groundwater conditions were characterized during the RI/FS. As set forth in Ecology's Cleanup Action Plan (CAP) for the site (included as Exhibit A to the Consent Decree), and based on the findings of the RI/FS, controls are needed at the site to continue to prevent future human and environmental exposure to buried (subsurface) refuse and associated soil contaminants. Moreover, although contaminants have not been detected in groundwater at the site at levels of potential concern, metals such as copper and zinc present in landfill refuse are mobilized by tidal processes affecting the shoreline landfill zone. These processes result in seepage to Whatcom Creek along a localized reach of the northern landfill unit shoreline that poses a potential risk to sensitive aquatic species in this area.

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#### 1.03 SELECTED CLEANUP REMEDY

The selected cleanup alternative for the site is a cap constructed along the northern landfill area (adjacent to the ReStore Building and the former Sash and Door property) and localized upland areas, in conjunction with institutional controls and monitoring of localized surface water seeps. Based on a consideration of geochemical processes controlling copper and zinc mobility at the site, the identified shoreline capping system would be designed to restrict tidal mixing and associated oxygen transfer into nearshore refuse deposits of the northwest landfill lobe. Such a cap system is expected to be effective in controlling the release of copper and zinc into Whatcom Creek. Furthermore, it offers a concurrent opportunity to improve the quality of intertidal habitat in this area.

This Project involves combining habitat restoration, public access, and land use elements into a single integrated cleanup remedy (also incorporating source control elements as discussed above). While the habitat restoration component is not necessary to achieve cleanup goals, it is fully consistent with remedial action objectives and the Bellingham Bay Comprehensive Strategy (Ecology 2000). The integrated plan includes:

- Excavating shoreline solid waste from the north bank, within and adjacent to the “B” Street right-of-way, and along localized portions of the south bank (Maritime Heritage Park)
- Backfilling the excavation areas with a clean cap material, graded to relatively flat slopes, concurrently providing slope stabilization and restoring historically lost aquatic habitat in this important estuary
- Enhancing the existing soil cap in portions of the Maritime Heritage Center to be consistent with other landfill areas already capped to ensure that humans and the environment are protected from buried solid waste
- Incorporating a public access boardwalk into the overall Project design to address existing community open space goals and planning objectives

The habitat restoration component of this Project includes conversion of approximately 0.3 acres of existing uplands to aquatic habitat via excavation and

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removal of refuse. This will restore critical estuarine riparian buffers, marsh, and mudflat banks that existed historically in this area of Bellingham Bay, and is designed to provide a park-like setting allowing trail access along this stretch of Whatcom Creek to the Maritime Heritage Center, potentially linked into the larger Whatcom Creek Trail Master Plan.

#### 1.04 SPECIFIC REQUIRED WORK TASKS

##### A. Refuse Excavation and Disposal

As generally described in the RI/FS and CAP, and consistent with the Comprehensive Strategy (Ecology 2000), refuse within a nominal 0.3-acre area within the existing B Street right-of-way (ROW) will be removed as part of the integrated cleanup and habitat restoration Project, and the excavation area backfilled with a clean cap graded material to achieve relatively flat slopes. This will result in a net conversion of uplands into aquatic habitat, providing a substantial net gain in habitat area and function.

As part of this Project, fill and refuse material will be removed (likely using an upland excavator) and transported/disposed at a permitted landfill (e.g., Roosevelt Regional Landfill). Most of the excavation is targeted along the north bank of Whatcom Creek; however, there is also limited excavation and grading on the south bank.

##### B. North Bank Shoreline Cap Design and Construction

The total thickness of cap material to be placed on the proposed site varies, but in general on the north bank of Whatcom Creek will be 3 to 3 ½ feet. The cap will be constructed in three to four separate compacted lifts, and will consist of separate layers including a clean, relatively fine-grained capping material, sand/gravel armoring material, and topsoil. Construction of the cap on the north bank will be limited to periods when tides are below the elevation of construction subgrade, and when there is no standing water present at the location of cap lift placement. Since the lowest elevation of cap material placement is +3 feet MLLW, the

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Contractor shall sequence their operations to account for daily tidal fluctuations. The Contractor shall achieve a nominal degree of compaction on each lift underlying the topsoil layer, accomplished by rolling or tamping each lift-. The topsoil layer will not be tightly compacted with mechanical equipment, since this could adversely affect its ability to support vegetation.

In selected areas, anchored large woody debris will be installed to improve habitat conditions along the creek and to potentially help reduce the potential for bank erosion. Also, in order to limit site access, a large woody debris barrier will be constructed at the northern end.

#### C. Stabilization of South Bank

As part of remedial measures for the Holly Street Landfill, a rock and gravel “buttress” will be placed along the south bank slopes of Whatcom Creek, with a design grade of 2H:1V or flatter. This will serve to both “soften” the currently eroded escarpment geometry of this bank and increase its overall stability, particularly against failure during seismic events.

#### D. Public Access Boardwalk

Within the northern landfill lobe, a new shoreline boardwalk trail will be constructed in the middle level of the bank near the lower edge of the riparian zone, and above the lower bench/marsh zone. The trail will run parallel to the shoreline for approximately 500 feet, and will link to Holly Street on the west and the fish hatchery path on the east. From the fish hatchery, the new boardwalk will ultimately connect to the Whatcom Creek Trail over an existing bridge.

#### E. Plantings

The site will be revegetated through the planting of trees, shrubs, and ground cover. In some areas, erosion control fabric will be installed on freshly capped surfaces to help protect against erosion before the vegetation is established.

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#### 1.05 COORDINATION OF WORK WITH WATER LEVELS

Whatcom Creek undergoes variations in water levels in response to tidal cycles and flow volumes in the creek. In general, the Contractor is required to conduct earthwork activities (excavation, backfilling, and capping) at times when water levels are at least one foot below the elevation of the earthwork. Additional requirements are specified in Section 02300 – Earthwork.

**END OF SECTION 01010**